

Abstract

An apparatus for authenticating memory space of an authorized accessory of a device includes an integrated circuit. The integrated circuit is configured to define two secret keys K_1 and K_2 , a
5 random function which returns a random number R and a first parameter being a function of the random number R using the secret key K_1 of the integrated circuit and to define a test function operable on data using the secret key K_2 of the integrated circuit to return a one or a zero. A control system is configured to call the random function of the integrated circuit, to call a read
10 function defined by the accessory using a function of R with the secret key K_1 stored by the accessory as a second parameter, such that the accessory returns a third parameter from the memory space which is a function of R using the secret key K_2 stored by the accessory if the first and second parameters are equivalent, to call the test function using a function of R with the secret key K_2 of the integrated circuit as a fourth parameter. The integrated circuit is configured
15 so that the test function returns a one if the third and fourth parameters are equivalent.